

# **RX8200 Advanced Modular Receiver**

## Software Version 4.3.2

## USER GUIDE





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## Introduction 1 1.1 Who Should Use this User Guide? This User Guide is written for operators/users of the RX8200 Advanced Modular Receiver to assist in installation and operation. Detailed information can be found in the Reference Guide companion document which is issued on CD. o)CD Warning! Do not remove the covers of this equipment. Hazardous voltages are present within this equipment and may be exposed if the covers are removed. Only Ericsson trained and approved service engineers are permitted to service this equipment. Caution! /!\ Unauthorized maintenance or the use of non-approved replacements may affect the equipment specification and invalidate any warranties.

## 1.2 What Equipment is Covered by this User Guide?

Ericsson is introducing an improved ordering system for its television products. New part numbers are being introduced to support this new system. The table below shows the new part numbers used for ordering and supply of the product and its options.

Marketing Code	Price Object Number	Supply Object Number	Description
RX8200/BAS	FAZ 101 0113/1	KDU 137 639/1	MPEG-2/MPEG-4 HD/SD Modular Receiver, AC Power Supply.
RX8200/BAS/2	FAZ 101 0113/2	KDU 137 639/2	MPEG-2/MPEG-4 4:2:2, AC Power Supply.

Table 1 Equipment Model Descriptions

## 1.3 Hardware and Software Options

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See *Table 2* and *Table 3* for a list of hardware and software options available with the receiver. Detailed information is in the *Reference Guide*.

Marketing Code	Price Object Number	Supply Object Number	Description
RX8200/HWO/DVBS2	FAZ 101 0113/5	ROA 128 3757	DVB-S2 Input Card
RX8200/HWO/IP/GIGE	FAZ 101 0113/12	ROA 128 3761	Gigabyte 100/1000BaseT Ethernet
RX8200/HWO/G703	FAZ 101 0113/8	ROA 128 3763	G.703 ATM Input Card
RX8200/HWO/MP2/422	FAZ 101 0113/15	ROA 128 3765	MPEG-2 4:2:2 Decode Card with only SD Decode Enabled
RX8200/HWO/IP/OUT	FAZ 101 0113/14	ROA 128 3756	Dual Gigabit IP Transport Stream Output Card
RX8200/HWO/SD	FAZ 101 0113/18	ROA 128 3758	SD Video Input and ASI Output Card with 2x CVBS, 2x Connectors for ASI/SDI
RX8200/HWO/HD/3G	FAZ 101 0113/10	ROA 128 3768	HD and SD Video Input and ASI Output Card
RX8200/HWO/RS232	FAZ 101 0113/17	ROA 128 4207	Remote Data Card
RX8200/HWO/BSKYB	FAZ 101 0113/4	ROA 128 4203	NDS BSKYB CA Card
RX8200/HWO/BAL/AUD	FAZ 101 0113/3	ROA 128 3760	Balanced Analogue and Digital Audio Output Providing 2 Stereo Pairs of Audio
RX8200/HWO/DVBS2/2	FAZ 101 0113/6	ROA 128 3762	2nd Gen DVB-S & DVB-S2 Satellite Input Option
RX8200/HWO/HQDCONV	FAZ 101 0113/60	ROA 128 4419	High-Quality Down-Conversion
RX8XXX/CABLE/XLR	FAZ 101 0108/24	RPM 901 364	XLR Terminal Audio Break-out Cable
RX8XXX/CABLE/SCRTRM	FAZ 101 0108/23	RPM 901 365	Screw Terminal Audio Break-out Cable

Table 2	RX8200 Hardware	Options

#### Table 3RX8200 Software Options

Marketing Code	Price Object Number	Supply Object Number	Description
RX8200/SWO/DVBS2/QPSK	FAZ 101 0113/32	FAT 102 0151	DVB-S2 QPSK License key
RX8200/SWO/DVBS2/8PSK	FAZ 101 0113/30	FAT 102 0152	DVB-S2 8PSK License key
RX8200/SWO/DVBS2/LSYM	FAZ 101 0113/31	FAT 102 0153	DVB-S2 Low Symbol Rate License Key
RX8200/SWO/MPEG2/SD	FAZ 101 0113/45	FAT 102 0169	MPEG-2 SD Decoding
RX8200/SWO/MPEG2/HD	FAZ 101 0113/44	FAT 102 0170	MPEG-2 HD & SD Decoding
RX8200/SWO/MP2/MP4/SD	FAZ 101 0113/40	FAT 102 0171	MPEG-2 & MPEG-4 SD Decode

Marketing Code	Price Object Number	Supply Object Number	Description
RX8200/SWO/MP2/MP4/SD/HD	FAZ 101 0113/41	FAT 102 0156	MPEG-2 & MPEG-4 HD and SD Decode
RX8200/SWO/SING/SERVFILT	FAZ 101 0113/53	FAT 102 0181	Single Service Filtering
RX8200/SWO/MULT/SERVFILT	FAZ 101 0113/47	FAT 102 0182	Multi-Service Filtering
RX8200/SWO/TTV	FAZ 101 0113/58	FAT 102 0168	Signal Protection Scrambling License
RX8200/SWO/IP/DATA	FAZ 101 0113/35	FAT 102 0183	High Speed Data Output
RX8200/SWO/PW	FAZ 101 0113/51	FAT 102 0154	Password Protection for Web Browser
RX8200/SWO/DIR5	FAZ 101 0113/27	FAT 102 0155	Director Single-Service CA
RX8200/SWO/DIR5/MSD	FAZ 101 0113/28	FAT 102 0166	Director Multi-Service Descrambling
RX8200/SWO/MSD	FAZ 101 0113/46	FAT 102 0165	Common Interface Multi Service Descrambling
RX8200/SWO/AC3	FAZ 101 0113/22	FAT 102 0158	Dolby Digital <sup>®</sup> Decoding / Down- mixing
RX8200/SWO/AAC	FAZ 101 0113/21	FAT 102 0179	AAC Decode
RX8200/SWO/NULL	FAZ 101 0113/48	FAT 102 0161	Null Packet TS License
RX8200/SWO/RAS	FAZ 101 0113/52	FAT 102 0164	RAS CA
RX8200/SWO/CI	FAZ 101 0113/25	FAT 102 0162	Common Interface CA Single- Service Decryption
RX8200/SWO/BISS	FAZ 101 0113/23	FAT 102 0163	BISS Mode 1 & E CA
RX8200/SWO/BISS/MSD	FAZ 101 0113/24	FAT 102 0167	BISS Multi-Service Descrambling
RX8200/SWO/IP/PROMPEG	FAZ 101 0113/37	FAT 102 0159	SMPTE 2022 Pro-MPEG FEC
RX8200/HWO/HD/3G	FAZ 101 0113/10	ROA 128 3769	HD OUTPUT CARD+1xCVBS, 1xRGB, 3x3G Connectors
RX8200/SWO/HDSDI/3G	FAZ 101 0113/34	FAT 102 0176	MPEG-4 HD 4:2:2 1080p 50/60 Decoding
RX8200/SWO/MP2/422/SD	FAZ 101 0113/59	FAT 102 0387	MPEG-2 SD 4:2:2 Decoding
RX8200/SWO/MP2/HD/422	FAZ 101 0113/39	FAT 102 0172	MPEG-2 HD and SD 4:2:2 Decode
RX8200/SWO/MP4/422/SD	FAZ 101 0113/43	FAT 102 0178	MPEG-4 SD 4:2:2 Decoding
RX8200/SWO/MP4/422/HD	FAZ 101 0113/42	FAT 102 0177	MPEG-4 HD 4:2:2 Decoding
RX8200/SWO/DCONV	FAZ 101 0113/26	FAT 102 0157	Simultaneous Down-conversion of HD to SD
RX8200/SWO/UPCONV	FAZ 101 0113/54	FAT 102 0174	Up-conversion from SD to HD (to

Marketing Code	Price Object Number	Supply Object Number	Description
			1080i or 720p)
RX8200/SWO/XCONV	FAZ 101 0113/55	FAT 102 0175	Cross-conversion
RX8200/SWO/FSYNC	FAZ 101 0113/33	FAT 102 0160	Frame Sync
RX8200/SWO/4AUD	FAZ 101 0113/20	FAT 102 0180	4 x Audio Capacity
RX8200/SWO/LDELAY	FAZ 101 0113/38	FAT 102 0173	Low Latency Decode

## 2 Installing the Equipment

## 2.1 Introduction

For best performance and reliability follow the instructions for site requirements and installation in the *Reference Guide* and only use installation accessories recommended by the manufacturers.

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#### Warning!

Do not remove the covers of this equipment. Hazardous voltages are present within this equipment and may be exposed if the covers are removed. Only Ericsson trained and approved service engineers are permitted to service this equipment.

## 2.2 Operating Voltage

#### Caution!

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your business, consult a qualified electrical engineer or your local power company.

**Note:** Refer to the *Reference Guide* for details of the color codes used on the mains leads.

See *Table 5* for fuse information and also the *Reference Guide* for a full power supply specification.

#### **AC Models**

AC models are fitted with a wide-ranging power supply. It is suitable for supply voltages of 100-240 V AC -10% +6% at 50/60 Hz nominal.

### 2.3 Power Cable and Earthing

Check that the power cable is suitable for the country in which the Receiver is to be used.

#### Warning!



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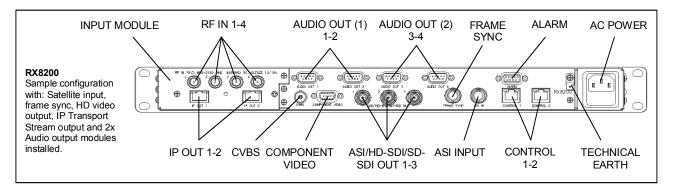
The Technical Earth is not a Protective earth for electric shock protection.

This unit must be correctly earthed through the molded plug supplied. If the local mains supply does not have an earth conductor do not connect the unit. Contact Customer Services for advice.

Before connecting the unit to the supply, check the supply requirements in *Annex B* of the *Reference Guide*.

## 2.4 Rear Panel Connectors

Always use the specified cables supplied for signal integrity and compliance with EMC requirements (see *the Reference Guide*).



Note: Rear panel connectors may differ, depending on the options selected.

Figure 1 Rear Panel Connectors

Table 4 Types of Connector

Type of Connector	Description
RF IN 1,2,3 & 4	F-type connectors for DVB or DVB-S2 modulated input feed.
AUDIO OUT 1,2,3 & 4	9-way male D-type connectors for analogue and balanced digital audio output.
FRAME SYNC	75 $\Omega$ BNC connector for frame synching input.
ALARM	9-way male D-type connector for alarm signal output.
IP OUT 1 & 2	8-way RJ-45 connectors for 1000BaseT IP output feed & de-encapsulated IP data
CVBS	75 $\Omega$ BNC connector for SD composite video output.
COMPONENT VIDEO	9-way male D-type connectors for component video output.

Type of Connector	Description
ASI/SD-SDI/HD-SDI OUT 1 , 2 & 3	75 $\Omega$ BNC connector for ASI or SDI (user selectable) output feeds.
ASI INPUT	75 $\Omega$ BNC connector for ASI input feed.
CONTROL 1 & 2	8-way RJ-45 connectors for 10/100BaseT Ethernet control and monitoring.
AC POWER	IEC100-120 V AC / 220-240 V AC power input.
TECHNICAL EARTH	Spade connector for unit technical earth.

2.5

## Connecting the Receiver to the Power Supply



Warning!

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

As no mains switch is fitted to this unit, ensure the local power supply is switched OFF before connecting the supply cord.

The receiver is not fitted with an on/off switch. Ensure that the socket-outlet is installed near the equipment so that it is easily accessible. Failure to isolate the equipment properly may cause a safety hazard.

Connect the receiver to the power supply as follows:

- 1. Ensure the power supply is isolated and switched off.
- 2. Ensure the correct fuse type and rating has been fitted to both the equipment and the power cable.
- 3. Connect the lead to the receiver input connector and then to the power supply.
- 4. Switch on the power supply.

Table 5	Fuse	Type and	Rating
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Power Supply	Fuse Type and Rating
100-120 V AC / 220-240 V AC	IEC/EN 60127-2 Sheet 5 Bussmann S505/Littelfuse 215 2 A 250 V T HBC

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**Note:** Refer to the *Reference Guide* for all power supply, fuse replacement, safety, EMC information and operating conditions.

# 3 Quick Start Guide: Connect-Power-Configure

## 3.1 Connecting the Receiver

The following points should be noted when making signal connections to the receiver:

- For models with option RX8200/HWO/DVBS2 fitted, connect the incoming satellite RF feed to the rear panel connector marked RF IN 1 - 4.
- For models with option RX8200/HWO/IP/GIGE fitted, connect the incoming MPEG Transport Stream over IP inputs to the rear panel connectors IP IN 1 -2.
- For models with option RX8200/HWO/G703 fitted, connect the incoming E3 or DS-3 ATM inputs to the rear panel connector **G703**.
- If you have an incoming ASI feed, this should be connected to the ASI Input.
- Decoded PAL or NTSC video is output on connector CVBS.
- Decoded analogue or digital audio is output on connectors **AUDIO OUT 1, 2, 3 or 4**. Adaptor cables are used to provide the connector type required for the installation.
- ASI OUT 1, 2 or 3 may output a Transport Stream, this can be manipulated/ generated in many ways according to the customer's requirements. Connectors may also be configured as SDI/HDSDI.
- For models with option RX8200/HWO/IP/OUT fitted, the incoming feed is also routed through the unit and output on connectors **IP OUT 1** and **IP OUT 2**.
- If the unit is to be controlled by Web browser or PC based control system then the control PC should be connected to connector **CONTROL 1** or **CONTROL 2**.
- If the unit is to be used to decrypt (non-Director) encrypted feeds then a Conditional Access Module and card should be inserted in the slot labeled **Conditional Access Interface** in the front panel.
- 3.2 Powering the Receiver

#### 3.2.1 Switching On

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#### Caution!

This equipment should not be operated unless the cooling fans are working and there is free-air flow around the unit.

1. Connect all signal and power cables to the rear panel of the unit.

2. Switch on the AC power supply to the unit at the wall or rack outlet.

Note: The RX8200 Receiver does NOT contain a power on/off switch.

- 3. After a short period of initialization the following screen is displayed on the Front Panel:
  - INITIALIZING 4.3.2 (Bank 0)
- 4. During initialization, confirm that the **Status** LED is on and all **Up**, **Down**, **Left**, **Right**, **Edit** and **Save** pushbuttons are lit.

#### 3.2.2 Power Up Operating Modes

When the equipment is switched on it will assume the control mode that was set when the power was turned off. This could be either:

- Local Front Panel/Web Browser control
- Director NCP control.

#### 3.3 Configuring the Inputs

#### 3.3.1 Transport Stream (ASI) Input

To configure the unit for ASI input:

1. Select ASI input from sub-menu Select Input.

#### 3.3.2 Satellite (DVB-S or DVB-S2) Input (if fitted)

Ensure that the incoming feed is connected to connector **RF IN 1**.

To configure the unit for Satellite input, navigate to the front panel **Input** menu **Source # Configure** menu and carry out the following steps:

- 1. Select **SAT** input
- 2. Set the LNB frequency
- 3. Set the Satellite frequency
- 4. Set the Symbol Rate
- 5. Set the Modulation scheme and FEC
- 6. Set the Roll-Off
- 7. Set the set the LNB power output

8. Set the set the LNB power output level

A description of each of these User Settings can be found in the Reference Guide.

**Note:** If the unit has successfully locked to the incoming feed, then the TS Lock value in menu **Input** should be **LOCKED**.

#### 3.3.3 IP (GIGE) Input (if fitted)

Ensure that the incoming feed is connected to connector IP IN 1.

To configure the unit for IP GIGE input, navigate to the front panel **Input** menu and carry out the following steps:

- 1. Select **IP** input
- 2. Set the Network 1 (and Network 2, if used) IP Address
- 3. Set up the MAC Mode parameters
- 4. Set up I/P Ports settings
- 5. Set up Stream 1/Unicast 1 (and Stream 2/Unicast 2, if used) settings
- 6. Set up Alarms/Alerts settings as required.
- A description of each of these User Settings can be found in the *Reference Guide*.
  - **Note:** If the unit has successfully locked to the incoming feed, then the TS Lock value in menu **Input** should be **LOCKED**.

#### 3.3.4 G.703 (ATM) Input (if fitted)

Ensure that the incoming feed is connected to connector G703.

To configure the unit for G.703 ATM input, navigate to the front panel **Input** menu and carry out the following steps:

- 1. Select G703 input
- 2. Set the Mode
- 3. Set up Destuffing/Deinterleaver
- 4. Set up Reed Solomon/Derandomiser
- 5. Set up Man Packet Length Ctrl/Packet Length Size
- 6. Set up ATM Delta/ATM Alpha settings
- 7. ATM Descrambling/Header Correction
- 8. ATM Header Error Ignore ATM VPI

- 9. Set up Sync Count to Lock/Sync Miss Sample Size
- 10. Set up Sync Miss Limit.
- A description of each of these User Settings can be found in the *Reference Guide*.
  - **Note:** If the unit has successfully locked to the incoming feed, then the TS Lock value in menu **Input** should be **LOCKED**.

### 3.4 Selecting a Decode Service (Program)

To select a decode service:

- 1. Navigate to the **Service** menu. For incoming feeds containing only a single service the service may be selected automatically depending on service selection control.
- If the service is NOT selected, press Edit and, using the ▲ (Up) and ▼ (Down) pushbuttons in the decode service sub-menu, scroll through the service name list.
- 3. Press **Save** to select the required service.
- **Note:** If the unit has successfully selected a service, then the Service ID and Service name should be displayed in the **Service** menu.

## 3.5 Configuring the Video Output

When configuring the Video Output, the following points should be observed:

- The unit will automatically decode the first video component that it finds within the selected service.
- An alternative video component may be selected from the service tab on the Web Control interface.
- If the incoming video is successfully decoded then the status **OK** should be displayed on the appropriate page.
- Successfully decoded High Definition video will be output from the connector marked Video Component.
- Successfully decoded Standard Definition video will be output from the connector marked **CVBS**.

## 3.6 Configuring the Audio Outputs

When configuring the Audio Outputs the following points should be observed:

- The unit will automatically decode the first two audio components that it finds within the selected service.
- Alternative audio components may be selected from the service tab on the Web Control interface.

## 3.7 Configuring for Single-service Decryption

When configuring for Single-service Decryption the following points should be observed:

- If the service selected for video decode contains encrypted components these components will automatically be decrypted by the unit.
- The outgoing feed from the unit will contain these decrypted components providing the TS feed on the **Output** tab on the Web Control interface is set to **descrambled**.

## 3.8 Configuring for Multi-service Decryption

When configuring for Multi-service Decryption the following points should be observed:

- With Director Multi-service Decryption, when a feed containing more than one encrypted service is applied to the unit, the first 24 services detected are automatically decrypted. A list of these services can be found in the service table on **Services** Menu.
- With Common Interface Multi-service Decryption, when a feed with more than one encrypted service is applied to the unit, the user may choose how it is decrypted using the Maximum CAM Services, Maximum CAM Components and Maximum CAM Components Per Service dialog boxes. The user should refer to the CAM vendor for CAM compatibilities before setting this up.
- This list may be modified from the **CA** tab on the Web Control interface.
- **Note:** This is only applicable for units/models that have Multi-service Decryption licenses enabled.

## 4 Front Panel Control

### 4.1 Introduction

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The Front Panel display and keypad may be used to configure, control and monitor the receiver when an external control system is not used.

**Note:** A list of receiver user settings that may be viewed or changed via the front panel and those that may be viewed or changed via the external web browser interface can be found in the *Reference Guide*.

## 4.2 Receiver Front Panel

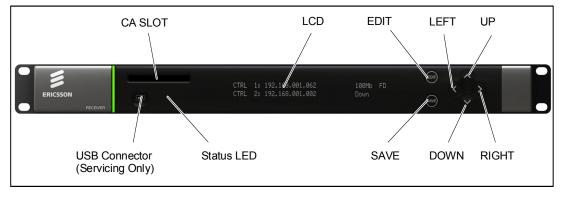


Figure 2 Front Panel LEDs and Pushbuttons

## 4.3 Using the Front Panel Controls

#### 4.3.1 Status LED

This multi-colored LED provides a visual indication of the summary status of the unit. The LED can be any one of three colors:

- Red (CRITICAL Error). Indicates that the unit has lost lock with the Transport Stream.
- Amber (MAJOR or MINOR Error). Indicates that the unit is locked to a Transport Stream but an error has been detected signifying incorrect conditions or system functioning.
- **Green (NO Errors).** Indicates that the unit is locked to a Transport Stream and correct conditions and system functioning are detected.

#### 4.3.2 LCD

A 2-line x 40-character back-lit dot-matrix Liquid Crystal Display (LCD) displays various menus and settings. The menus and setting available will vary depending on which options have been enabled through the purchase of a suitable license.

#### 4.3.3 Arrow Pushbuttons

Four arrow pushbuttons (or keys) are used to navigate through the front panel LCD menus.

Each arrow pushbutton is backlit by an integral LED when active, indicating that a further choice or action is available by pressing that pushbutton.

- ▲ = Up
- ▼ = Down
- Example 1 = Left (Back)
- Right (Forward)

#### 4.3.4 Edit and Save Pushbuttons

The **Edit** and **Save** pushbuttons are used to modify and store user settings within the selected menu.

The **Edit** pushbutton is backlit by an integral LED when the current menu contains an editable setting.

To edit a user setting within the selected menu:

- 1. Press the **Edit** pushbutton and then use the ◀ (Back) and ► (Forward) pushbuttons to move the cursor within that menu (if necessary).
- 2. Change the value of the setting using the  $\blacktriangle$  (Up) and  $\blacktriangledown$  (Down) pushbuttons.

During this edit operation, both the Edit and Save pushbuttons will be lit.

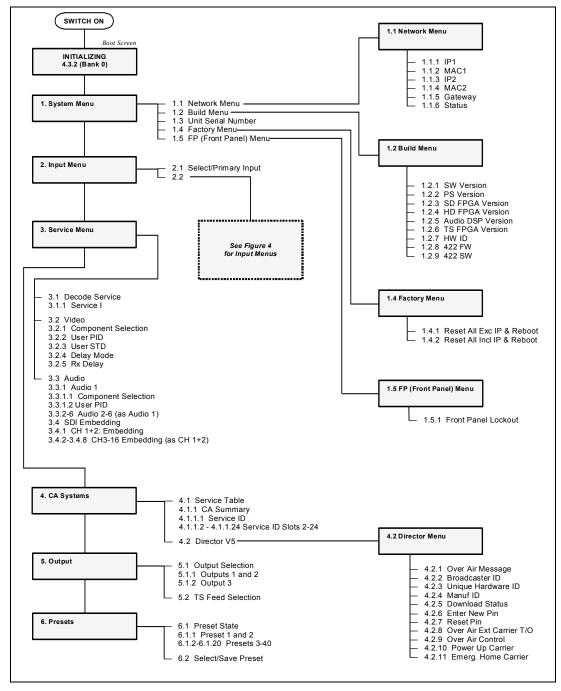
The **Save** pushbutton is backlit by an integral LED when changes have been made to a setting that require saving.

When a user setting has been modified:

- 1. Press the **Save** pushbutton to confirm and action this new setting.
- 2. To ignore any changes that have been made and to return to the original setting, press the **Edit** pushbutton.

### 4.4 Front Panel Menus

An overview of the available Front Panel menus is shown below. The menus and settings available will vary depending on which receiver model is being used and which options have been enabled through the purchase of a suitable license.



**Note:** The menu structure is subject to change as further functionality is added.

Figure 3 Front Panel Menus



Figure 4 Input Card Front Panel Menus

#### 4.4.1 Menu Structure

The Front Panel menus and sub-menus, available on the LCD, provide the configuration parameters that may be viewed, selected and/or modified.

- **System** Provides sub-menus for viewing/configuring the receiver hardware and access parameters.
  - **Network** Enables the input and display of the addresses required to communicate with the receiver. Access to the receiver Status page is also available from this sub-menu.
  - **Build** Provides version and ID numbers for the hardware and software products installed in the receiver. Also provides options for rebooting the receiver and deactivating the Front Panel controls.
  - Unit Serial Number Displays the unit serial number.
  - Factor Provides receiver rebooting options.
  - **FP (Front Panel)** Enables viewing/configuring of the Front Panel lockout facility, which allows the Front Panel controls to be deactivated.
- Input Provides sub-menus for viewing/configuring the Input Card (Satellite Input Card, I/P Input Card or G.703 Input Card) parameters.
  - **Select/Primary Input** Enables the selection of the primary input for the receiver.
  - **Select Satellite Input** Enables viewing and editing of the configuration parameters for the Satellite Input Card, if fitted.
  - **IP Input Card** Enables viewing and editing of the configuration parameters for the I/P Input Card, if fitted.
  - **Configure G.703 Input** Enables viewing and editing of the configuration parameters for the G.703 Card, if fitted.
- **Service** Provides sub-menus for viewing/configuring the currently selected service for decode from the input feed.
  - Decode Service Enables selection of the required decode service.
  - **Video** Enables selection of video services, such as the video component, etc.
  - Audio Enables selection of audio services, such as the channel, etc.
- **CA Systems** Provides sub-menus for viewing/configuring Conditional Access parameters that restrict and control access to the receiver and select the service for decryption from the incoming feed.
  - Service Table Displays a summary of the CA features and the service ID number.

(o) CD

- **Director** Enables configuration of Director Conditional Access parameters, such as: ID numbers, download status and the facility to reset or change the PIN number.
- Output Menu Provides sub-menus for viewing/configuring the receiver output parameters.
  - **Output Selection** Enables selection of the required output type.
  - **TS Feed Selection** Enables selection of the descrambling for the Transport Stream Feed.
- **Presets** Provides sub-menus for viewing, storing and retrieving up to 40 sets of input configuration parameters (tuning parameters and service selections).
  - Preset State Enables the current list of presets to be viewed.
  - Select/Save Preset Enables selection and saving of presets.

More detail on all user settings may be found in the *Reference Guide*.

## 5 Web Browser Control

### 5.1 Introduction

A personal computer (PC) running a Web Browser can be used to configure, control and monitor the receiver remotely. The following web browsers have been tested:

- Microsoft Internet Explorer (This is the only browser supported by Ericsson)
- Mozilla Firefox (Functional but unsupported)
- Google Chrome (Functional but unsupported)

#### 5.1.1 Setting Up Web Browser Remote Control

- 1. Connect the PC to either of the two IP control interfaces on the rear of the receiver (labelled **ETHERNET 1 / 2** or **CONTROL 1 / 2**).
- 2. Enter the settings for the relevant control port (IP Address, Subnet and Gateway) via the front panel **Network** menu.
- **Note:** If the receiver is connected to an existing network, or is not on the same subnet as the control PC, assistance from the network administrator may be required in modifying the network settings.
- 3. Open a Web Browser window on the PC.
- 4. Enter the IP address of the receiver into the address field of the Web Browser. The Status page of the receiver interface will appear in the Web Browser window.
- **Note:** To assist with troubleshooting, the IP control ports will respond to ICMP PING request messages.

More details on all receiver user settings available on Web Browser Control can be found in the *Reference Guide*.

5.2 Using the Web Browser Interface

#### 5.2.1 Navigation

O)CD

The Web Browser Interface displays various web pages, corresponding to the different functions of the receiver, in the format shown in *Figure 5*.

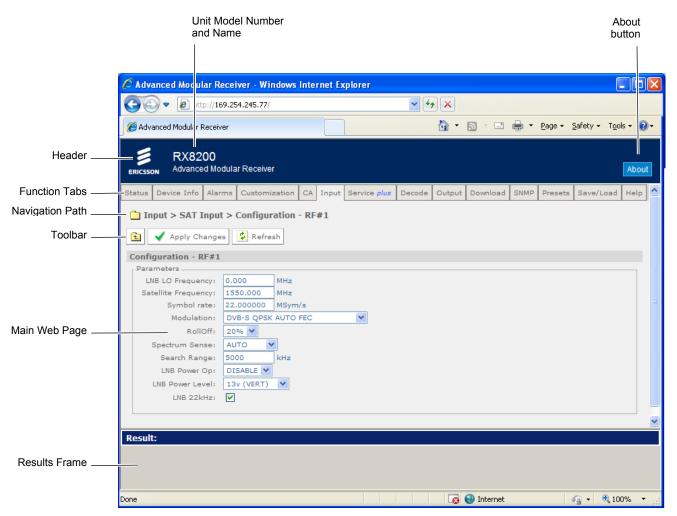


Figure 5 Web Page Overview (Typical)

• **Header** – The header of the web page displays the Ericsson logo and the unit model number name. At the right-hand side of the header an **About** button which, when clicked, displays an information dialog about the unit, including the software version number. Click the **OK** button to close the dialog.

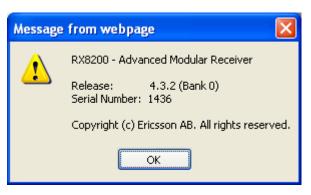


Figure 6 About dialog (Typical)

 Function Tabs – The web pages for control and monitoring of specific functions are accessed by selecting the appropriate function tab along the top of each web page. When you switch between tabs, the browser remembers the path for each tab.

- Navigation Path The web pages are organized into a tree-like structure, like the directory on a computer. The current complete navigation path is always displayed at the top of the web page, which shows the route taken to the currently displayed web page. To return to a higher level (parent) web page (folder), simply click on the relevant name link in the Navigation Path or click or the Top Level Folder in the toolbar.
- **Toolbar** The toolbar provides various tools/buttons, depending on the web page selected. Various icons, buttons and symbols can appear in the Toolbar, depending on the web page displayed.
- Main Web Page The main content of the web page (or folder) displays the parameters and their current values. Some parameters will be modifiable by overtyping, by selecting an option from a drop-down menu or by placing a tick in a checkbox, as required. Any changes made will not be applied to the unit until the Apply Changes button is clicked in the Toolbar.
- Results Frame The result frame at the bottom of the screen shows the results of command actions. SUCCESS, SUCCESS with warnings or ERROR may be displayed, with further details as appropriate for more complex actions.

The following table lists the various icons, buttons and other symbols used in these web pages.

#### 5.2.2 Viewing the Web Pages

The user settings that may be viewed, or modified from the Web Browser interface, are grouped together by function and are displayed on a number of pages. These pages can be viewed by selecting the relevant tabs.

After any changes are made to user settings, the '**Apply Changes**' button must be pressed to action the changes.

To use the receiver Web Browser Interface: enter the IP address (which was assigned to the receiver control port in the front panel system menu) into the address field of the Web browser.

If the network is correctly configured, the Status page should be automatically loaded and displayed.

## 5.3 Web Pages

#### 5.3.1 Status

This web page shows a number of top-level parameters indicating the current status of the receiver.

Status Device Info	Alarms C	Customization	CA Input	Service pl	us D	Decode	Service S	split	Output	Download	SNMP	Presets	Save/Loa
III Status													
Status													
C Refresh													
Name	Distribu	tion Receive	er										
IP Address #1	169.25	4.093.026											
IP Address #2	172.01	7.110.193											
Current Status	Critica	6											
Current Time	2001-0	1-01 00:00:	00										
Uptime	00000	0:40:58 DAY	SH:M:S										
Input Status	UNLOC	KED 0.000 M	Ibits/s										
Video Status	STOPPE	ED											
Audio 1 Status	STOPPE	D											
Audio 2 Status	STOPPE	D											
CA Status	NO SER	VICE											
Service Filter State	S OFF												
Output Feed	Descrar	mbled											
Mode	ACTIVE												
Time	Faund	ty Name		Source	~1~A	Death Alla		and the state	Testa				
Time 2000-01-01 00:00:			*	RX8000			05 0		No TS I	ock	_		
2000-01-01 00:00		EAN 1 Fai		RX8000	_		01 0	_	FAN 1		_		
2000-01-01 00:00:		EAN 2 Fai		RX8000			102 0		FAN 2 F				
2000-01-01 00:00:		SNR		RX8000			04 0		SNR				
2000-01-01 00:00:		Video Not	Running	RX8000	1	0 10	10 0		Video I	Not Running	2		
2000-01-01 00:00:	01 Major	Decoder	Not Running	RX8000	1	0 10	11 0		Decode	er 1 Not Ru	nning		
2000-01-01 00:00:	01 Major	Decoder	Not Running	RXSODO	1	0 10	12 0		Decode	er 2 Not Ru	nning		

Figure 7 Status Web Page

#### 5.3.2 Device Info

The Device Info web page provides access to system-level settings for the receiver and can be used to enable the Front Panel Lockout Facility and initiate Rebooting functions.

Status	Device Info	Alarms	Customization	CA	Input	Service <i>plus</i>	Decode	Output	Download	SNMP	Presets	Save/Load	Help
	evice Info												
-	Apply Change	s 💈	Refresh										
Devi	ce Info												
	Product Infor	mation –											
Pr	Name: oduct Name:	and the second second	ed Modular Recei D	ver	<b></b>	uild   nvironment   etwork Settings		II Modul	es [7] Destination	Table [0]	Þ		
Ø	Date and Time	e											
Ci			1-01 00:00:00 ):39:13 DAYS H:!	M:S									
Froi	nt Panel Lock(	Out											
Fr	ont Panel Locl	kout:	) On ) Off										
Reb	oot Device												
	K Reboot Un	it											
			ctory Default valu Factory defaults	ies (E	except I	P Parameters)	and Rebo	ot Device	2				
	Quality Logs s Flush all Qua		i										

Figure 8 Device Info Web Page

This page also provides buttons to the following further web pages:

- Build provides details of equipment build and version numbers. No usereditable fields.
- **Environment** provides details of the physical environment of the equipment such as temperature and fan speed. No user-editable fields.
- Network Settings provides details of settings for control 1 and 2 networks. No user-editable fields.
- Modules lists all modules contained in the equipment chassis. No usereditable fields.
- Trap Destination Table lists the destination of SNMP Trap messages that are generated when an alarm occurs. This page provides a facility for the user to add further trap destination details as required.

#### 5.3.3 Alarms

The Alarms web page provides access to the alarms settings for the receiver. The contents of this page are composed mainly of fields with drop-down menus which allow the setting or masking of various alarms and check boxes which can be used to activate relay mapping. Two of the alarm fields, namely C/N (Carrier-to-Noise) Margin and Over Temperature also have associated entry fields which allow the user to enter a value which, if exceeded, will activate the alarm.

St	atus Device Info Alarms Customization	CA Input	Se	rvice <i>plus</i>	Decode	Output	Download	SNMP	Presets	Save/Load	Help
C	Alarms										
	Apply Changes 2 Refresh										
P	larms										
[	Input		_								
	No TS Lock:	No Alarm	•								
	No TS Lock (relay mapping):		_								
	No Primary Input Lock:	Set Alarm	•								
	No Primary Input Lock (relay mapping):										
	Monitor Inactive Input:										
	No Secondary Input Lock:	Set Alarm	•								
	No Secondary Input Lock (relay mapping):										
	C/N Margin:	No Alarm	•								
	C/N Margin (min value):	1		dB							
	C/N Margin (relay mapping):										
Ì	Output		22								
	IPO Ethernet If 1 Down :	No Alarm	•								
	IPO Ethernet If 1 Down (relay mapping):										
	IPO Ethernet If 2 Down :	No Alarm	•								
	IPO Ethernet If 2 Down (relay mapping):										
	Service										
	_	No Alarm									
	Video Not Running (relay mapping):										
	Decoder 1 Not Running:										
		No Alarm									
	Decoder 1 Not Running (relay mapping): Decoder 2 Not Running:										
	Decoder 2 Not Running (relay mapping):										
	Decoder 3 Not Running:	No Alarm									
	Decoder 3 Not Running (relay mapping):										
	Decoder 4 Not Running:	No Alarm									
	Decoder 4 Not Running (relay mapping):		-								
	Decoder 5 Not Running:	No Alarm	•								
	Decoder 5 Not Running (relay mapping):		-								
	Decoder 6 Not Running:	No Alarm									
	Decoder 6 Not Running (relay mapping):		_								
	Closed Caption Fail:	No Alarm	•								
	Closed Caption Fail (relay mapping):										
	CA Error:	No Alarm	-								
	CA Error (relay mapping):										

OverTemperature :	Set Alarm 👻	
Temp (Max Value):	55	°C
OverTemperature (relay mapping):		
FAN 1 Failed :	Set Alarm 👻	
FAN 1 Failed (relay mapping):		
FAN 2 Failed :	Set Alarm 🔶	
FAN 2 Failed (relay mapping):		
FAN 3 Failed :	Set Alarm 👻	
FAN 3 Failed (relay mapping):		
FAN 4 Failed :	Set Alarm 👻	]
FAN 4 Failed (relay mapping):		

Figure 9 Alarms Web Page

#### 5.3.4 Customization Web Page

The Customization web page provides access to the list of licenses enabled on the equipment and to enable further licenses (as purchased) by entering the custom key provided.

atus Device Illio	Alarms	Customization	CA I	nput S	Service plus	Decode	Output	Download	SNMP	Presets	Save/Load	Hel
🗋 Customizati	on											
🖌 Apply Change	s 🚺 Re	efresh										
Customization												
Folders and Table	s											
I Licensed F	eatures	Þ										
Parameters												
Parameters Serial Number:	3439096	58634										
	3439096	58634										

Figure 10 Customization Web Page

#### 5.3.5 CA

The CA web page allows viewing and modification of the Conditional Access (CA) user settings for:

- **Director** allows the user to view the current settings for the Director and to activate or deactivate various functions as required.
- **BISS** allows the user to view and modify the settings for Basic Interoperable Scrambling System (BISS). These are Mode 1, Mode E Fixed, Mode E Ericsson, Mode E User One, Mode E User Two. Mode 1 uses an unencrypted key for the BISS key. Mode E uses an encrypted key, which uses either an internal code word or User One or User Two to decrypt, depending on the mode.
- Signal Protection allows the user to enable or disable signal protection.

• **RAS** - allows the user to select Digital Satellite News Gathering (DSNG) or Fixed Key mode and input a 7-digit DSNG key.

atus Device Info Alarms Customization CA Input Service plus Decode Service Split C	Output	Download	SNMP	Presets	Save/Load	i Hel
CA						
Apply Changes 2 Refresh						
Apply changes Kerresh						
A						
Service Status						
CA Service-Status [24] >						
Director						
Over Air Control:						
Over Air Message:						
Over Air Carrier Timeout: 15 s						
Over Alr Extd Carrier Timeout:						
Power Up Carrier: NO STORED SERVICE						
Emergency Home Carrier: NO STORED SERVICE						
Common Interface						
CI Module Status: NOT PRESENT Maximum CAM Servi	ices) 2		0	escramble	VIDEO	2
CI Module Name: None Maximum CAM Compone	5655665 m	2	D	escramble	AUDIO:	2
Number of Descrambled Services: 0 Maximum CAM Components Per Serv	vice: 1	2	De	scramble 0	THERS:	2
Number of Descrambled Components: 0						
Descramble Follows Decode:						
B 8155						
BISS Mode: MODE E FIXED Viser One:						
BISS Keyi User Two:						
Signal Protection						
TTV Signal Protection: DISABLE 👻						
I RAS						

Figure 11 CA Web Page

#### 5.3.6 Input

The Input Web Page provides access to the parameters of the various inputs to the receiver. The page, which is displayed, depends on which Input cards are fitted. The options are:

- Satellite Input Card
- I/P Input Card
- G.703 Input Card

Typically the pages include parameters for input feed lock status and bit rate, primary and secondary feed selection, input tuning, input signal and quality levels.

If the Satellite Input Card is fitted, the following Input web page is displayed.

Input Apply Changes	Status Device Info Alarms	Customization	CA Input	Service plus	Decode	Output	Download	SNMP	Presets	Save/Load	Help
Input Input Input Source: ASI  Primary Input: ASI  Primary Lock Switch Period: 1  minutes Input Loss Switch Period: 1  Stock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked	🗋 Input										
Input Input Input Source: ASI  Primary Input: ASI  Primary Lock Switch Period: 1  minutes Input Loss Switch Period: 1  Stock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked SAT: Unlocked											
Input       Input Source:       ASI       Return to Primary:       Primary Input:         Primary Input:       ASI       Primary Lock Switch Period:       1       minutes         Input Loss Switch Period:       1       seconds       1       minutes         Current Input:       ASI       TS Lock:       UNLOCKED       TS Bitrate:       0.000 Mbits/s         Packet Length:        ASI Status:       Unlocked         SAT:       Unlocked       SAT:       Unlocked	Apply Changes	rresn									
Input Source: ASI  Return to Primary: Primary Input: ASI  Primary Lock Switch Period: 1 minutes Input Loss Switch Period: 1 minutes Current Input: ASI Current Input: ASI TS Lock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked SAT: Unlocked	Input										
Primary Input:       ASI       Primary Lock Switch Period:       1       minutes         Input Loss Switch Period:       1       seconds       1       1       1         Current Input:       ASI       Study       1       1       1       1       1         TS Lock:       UNLOCKED       TS Bitrate:       0.000 Mbits/s       1	[ 📓 Input										
Input Loss Switch Period: 1 seconds Current Input: ASI TS Lock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked SAT: Unlocked	Input Source:	ASI 👻		Retur	n to Primai	y: 🔳					
Current Input: ASI TS Lock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked SAT: Unlocked	Primary Input:	ASI 👻		Primary Lock S	witch Perio	d: 1	1	minutes			
TS Lock: UNLOCKED TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked III Satellite Input	Input Loss Switch Period:	1	seconds								
TS Bitrate: 0.000 Mbits/s Packet Length: ASI Status: Unlocked SAT: Unlocked III Satellite Input	Current Input:	ASI									
Packet Length : ASI Status: Unlocked SAT: Unlocked	TS Lock:	UNLOCKED									
ASI Status: Unlocked SAT: Unlocked	TS Bitrate:	0.000 Mbits/s									
SAT: Unlocked	Packet Length :										
Satellite Input	ASI Status:	Unlocked									
	SAT:	Unlocked									
📋 Satellite Input 🕨	Satellite Input										
	🛅 Satellite Input 🕨										

Figure 12 Input Web Page (Satellite Input Card fitted)

Click on the **Satellite Input** button on the Input page to display a further sub page.

	Alarms	Customiza	tion C/	Input	Service plus	Decode	Output	Download	SNMP	Presets	Save/Load	Hel
Input > SAT	Input											
Apply Ch	anges	🗘 Refresh										
AT Input												
Folders and Tables	5											
Configuratio	on - RF#1		Þ									
Configuratio	on - RF#2		Þ									
Configuratio	on - RF#3		Þ									
Configuratio	on - RF#4		- F									
			-									
			-									
Parameters												
Parameters			-									
	RF Inp	ut 01 🔻										
RF Selection:	RF Inpl UNLOC	ut 01 👻 KED										
RF Selection: Lock Status:	RF Inpu UNLOC	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio:	RF Inpu UNLOC	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio:	RF Inpu UNLOC dBm  dB	ut 01 👻 KED	-									
RF Selection: Lock Status: Signal Level: Error Ratio: C/N:	RF Inpr UNLOC dBm dB dB	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio: C/N: C/N Margin:	RF Inpu UNLOC dBm dB dB	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio: C/N: C/N Margin: Standard:	RF Inpr UNLOC dBm  dB dB 	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio: C/N: C/N Margin: Standard: Modulation:	RF Inpu UNLOC dBm dB dB dB  	ut 01 👻 KED										
RF Selection: Lock Status: Signal Level: Error Ratio: C/N: C/N Margin: Standard: Modulation: FEC Rate:	RF Inpu UNLOC dBm dB dB dB   	ut 01 👻 KED										

Figure 13 Input > SAT Input Sub Page (Satellite Input Card fitted)

The only field which may be edited by the user is the **RF Selection** field which allows selection of the appropriate RF Input.

There are also four **Configuration** buttons which allow the viewing and setting of the tuning parameters for the four possible RF inputs.

_ 10	put										
/ A	pply Changes	🗘 Re	efresh								
		-									
nput ∭]	Input ———										
		Source:	ASI 💙		Re	eturn to Pri	marv:				
	Primary	Input:	ASI 🗸		Primary Lo			1	minut	es	
Inc	out Loss Switch		1	seconds	N	Iull Pkt Ove	erride:				
		Input:			ASI TS Nu	II Pkt Three	shold:	100	%		
	т	S Lock:	UNLOCKED		IP Input TS Nu	ll Pkt Three	shold:	100	%		
	TS	Bitrate:	0.000 Mbits/s		ASI TS Nul	I Pkt Occup	ancy:	0 %	-		
	Packet L	ength :			IP Input TS Nul	Pkt Occup	ancy:	0 %			
	ASI	Status:	Unlocked								
	I	PInput:	Unlocked								

If the I/P Input Card is fitted, the following web page is displayed.

Figure 14 Input Web Page (IP Card fitted)

Click on the **IP Input** button on the Input page to display a further sub page.

atus Device Info Alarms C	ustomization CA I	nput Service <i>plus</i> Deco	de Output D	ownload SNMP Presets	Save/Load He
] Input > IP Input					
🚹 🖌 Apply Changes 💈	Refresh				
IP Input					
Alerts: Both ports link down,	Both ports no data, F	Port 1 link down,			
Last IP Received:	000.000.000.000	MDI Delay Facto	: 0.000 ms	Network Utilisation 1	: 0 %
Number of Columns:	N/A	FIFO overflow coun	: 10	Network Utilisation 2	: 0 %
Number of Rows:	N/A	MDI Media Loss Rate	: 0.000 pkts/s	sec Rx Up Time 1	: 960.11 sec
TS packets per UDP frame:	7	FEC Latence	: 0 ms	Rx Up Time 2	: 960.22 sec
Encapsulation:	UDP ONLY	Current Port (status	: Port 1	Current Buffer Level	: 0 ms
IP Packets Received:	0	Software version	: 0.13		
Corrected Packet Count:	0	Firmware sw version	: 0.77		
Lost Packet Count:	0	CPLD sw version	: 1.2		
IP Jitter:	10				
	CReset IP Stats				

IP interface IP Address 1:					
	169.254.093.024	IP Address 2	: 000.000.000.	000	
Subnet Mask 1:	255,255,000,000	Subnet Mask 2			
Default Gateway 1:	192.168.000.001	Default Gateway 2			
VLAN Tag 1:	5500	VLAN Tag 2			
VLAN Enable 1:	Disable V	VLAN Enable 2			
ICMP Enable 1:	Enable V	ICMP Enable 2			
Port 1 IGMP Version:		Port 2 IGMP Version			
SNMP Enable:		IP params to XML output			
Shine Lindbler		TP parama to xine output			
Card config settings	F				
ARP Enable 1:	Enable 💌	ARP Enable 2:	Enable 💌		
Ethernet Line Mode 1:	AUTO 💙	Ethernet Line Mode 2:	AUTO 🔽		
Current Line Mode 1:	Link down	Current Line Mode 2: L	ink down		
Duplex 1:	Link down	Duplex 2: L	ink down		
MAC Address 1:	00:20:AA:4f:06:1b	MAC Address 2: 0	0:20:AA:4f:06:1	Ь	
MAC Mode:	Same 💙				
EC Enable: Disable 🔊	•				
Mcast IP Address 1:	169.254.093.024		ast IP Address 2:	000.000.000.000	Unicast Enable 2:
Source IP Address 1:	000.000.000.000		rce IP Address 2:	000.000.000.000	Unicast Enable 2:
Source IP Address 1: UDP Port 1:	000.000.000.000 4000		rce IP Address 2: UDP Port 2:	000.000.000.000 5500	Unicast Enable 2: [
Source IP Address 1: UDP Port 1: Column Port 1:	000.000.000.000 4000 0		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1:	000.000.000 4000 0 0		rce IP Address 2: UDP Port 2:	000.000.000.000 5500	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1:	000.000.000.000 4000 0		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level:	000.000.000 4000 0 0 500 ms		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level:	000.000.000 4000 0 0 500 ms		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level: Redundancy config se Use Input Ports: Po	000.000.000 4000 0 500 ms		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level: Redundancy config se Use Input Ports: Po	000.000.000 4000 0 0 500 ms tting rt 1		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level: Redundancy config se Use Input Ports: Po Auto Revert Delay:	000.000.000 4000 0 0 500 ms tting rt 1		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level:	000.000.000 4000 0 0 500 ms tting rt 1		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:
Source IP Address 1: UDP Port 1: Column Port 1: Row Port 1: De-jitter buffer level: Redundancy config se Use Input Ports: Po Auto Revert Delay: 0	000.000.000 4000 0 0 500 ms tting rt 1		rce IP Address 2: UDP Port 2: Column Port 2:	000.000.000.000 5500 0	Unicast Enable 2:

Figure 15 Input > IP Input Sub Page (IP Card fitted)

If the G.703 Input Card is fitted, the following web page is displayed.

🖌 Apply Changes 🚺 Re	fresh							
iput								
Input								_
Input Source:	G.703 🚽		Return	to Primary:				
Primary Input:	G.703 🗸		Primary Lock Swi	tch Period:	1	minutes		
Input Loss Switch Period:	1	seconds						
Current Input:	G.703							
TS Lock:	UNLOCKED							
TS Bitrate:	0.000 Mbits/s							
Packet Length :								
ASI Status:	Unlocked							
G.703:	Unlocked							

Figure 16 Input Web Page (G.703 Input Card fitted)

Status	Device Info	Alarms	Customization	CA	Input	Service	olus	Decode	Output	Download	SNMP	Presets	Save/Load	Help
🗋 In	put > G.703		t 🖉 Refresh											
G.703	Input													
	3703 Input Par	ameter	s											
	PDH R	ate: N	IONE	TS	Packet	Length:								
	Fram	ing: N	IONE		Deinte	erleaver:	-							
1	MPEG Alert Sta	tus: S	YNC LOSS		Reed-S	iolomon:	-							
Phy	sical Alert Sta	tus: L	OSS OF SIGNAL		Deran	domizer:	<b>V</b>							
	Card Alarm Sta	tus: N	IO ALARM		Ran	domizer:	false							
	Advanced —													
		Mode:	MPEG 💂											
	Sync Cnt To	Lock:	8											
Sy	nc Miss Sample	Size:	30											
	Sync Miss	Limit:	3											
	Dest	uffing:												
1 9	Man Pkt Length	Chela												

Click on the G703 Input button on the Input page to display a further sub page.

Figure 17 Input > G.703 Input Sub Page (G.703 Input Card fitted)

#### 5.3.7 Service *Plus*

The Service *Plus* web page provides access to the various encryption and encoding services available to the receiver. A Service Control table is displayed showing which services are available. The only user-editable fields in this table are the Decrypt and Decode checkboxes. The user can select **Decrypt**, **Decode**, **Filter** or **Remap** for each service, depending on the node selected on the Output tab.

Status	Device Info	Alarms	Customization	CA Input	Service plus	Decode	Service Sp	it Output	Download	SNMP	Presets	Save/Load	Help
m s	ervices												
•	🖌 Apply C	hanges	X Drop All Sele	ctions	Refresh								
Serv	iceControl	Table											
	Encryption Unknown	Service Unknown	Type Service II	9 Servie	ce Name De	crypt De		info Filte	r Remap				
0	Unknown	Unknown	3		<b>V</b>		Deta	ils 🗖					
0	Unicnown	Unknown	4		<b>N</b>		Deta	in 🗖					

Figure 18 Service Plus Web Page

#### 5.3.8 Decode

The Decode web page provides access to the video, audio and decoding functions of the receiver. There are a number of user-editable fields, via drop-down menus, available on this page and also provided are a number of buttons, which give access to the following further web pages:

• Advance - gives access to more advanced video and audio parameters.

- **VBI-VANC** gives access to Vertical Blanking Interval-Vertical Ancillary Data Space (VBI-VANC) parameters.
- **Splice** gives access to the splice operation parameters.
- **DVB Subtitles** gives access to the Digital Video Broadcasting (DVB) subtitles parameters.
- **Teletext** gives access to the Teletext parameters.

	ms Customization CA Input Service plus Decode Output Download SNMP Presets Save/Load Help
Decode	
🖌 Apply Changes	Refresh
Decode	<u> </u>
Service	
Service: 2	(NOT PRESENT) - TS ID : C Advanced > DVB Subtitles >
PCR: 81	190 - (NOT PRESENT) VEI-VANC
PCR Status: Not	t Detected Original Network ID:
Current SI Mode: DV	/B Forced
🗐 Video —	
PID: 20:	2 - MPEG-4 AVC (NOT PRESENT) - Bit Rate: 0.000 Mbits/s AFD / Bar Data: Unknown
Status#1: ERR	OR Scan Type: Interlaced Uptime: 0000:00:00 DAYS:H:M:S
Video Standard: MPE	EG-4 AVC Color Type: Unknown
Aspect Ratio: Unk	
Frame Rate: OHz	
Resolution: 0×0	Bit Buffer Level: 0 %
Audio Outputs	
, 🗐 Audio Connectors	
_	om: Decoder 1, STEREO - Status: INACTIVE Clipping Level: 20 dB
	om: Decoder 2, STEREO V Status: INACTIVE Clipping Level: 20 dB
SDI Embedding	
	NO EMBEDDING V Status:
Group 1 (ch 3+4):	Ekshurt and
Group 2 (ch 5+6):	NO EMBEDDING V Status:
Group 2 (ch 7+8):	NO EMBEDDING V Status:
Group 3 (ch 9+10):	NO EMBEDDING V Status:
Group 3 (ch 11+12):	
Group 4 (ch 13+14):	
0100p 4 (cii 10+14):	NO EMBEDDING V Status:
Group 4 (ch 15+14):	Status:
	Status:
Group 4 (ch 15+16):	Status:
Group 4 (ch 15+16):	NO EMBEDDING V
Group 4 (ch 15+16):	NO EMBEDDING V
Group 4 (ch 15+16):	NO EMBEDDING V
Group 4 (ch 15+16): Audio Decoders — Decode Mode: Stereo Decoder 1 (Advance) PID: NO SE	NO EMBEDDING  Status: ***  ed) ELECTION  Status: STOPPED
Group 4 (ch 15+16): Audio Decoders — Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0	NO EMBEDDING   Status: ***  ed)  ELECTION   Status: STOPPED  dB Uptime: 0000 00:00:00 DAYS H:M:S
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std:	NO EMBEDDING  Status: ed)  ELECTION  Status: STOPPED dB Uptime: 0000 00:00:00 DAYS H:M:S Buffer Usage:
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std: Language 1:	NO EMBEDDING  Status: ed)  ELECTION  Status: STOPPED dB Uptime: 0000 00:00:00 DAYS H:M:S Buffer Usage: Bitrate:
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std:	NO EMBEDDING  Status: ed)  ELECTION  Status: STOPPED dB Uptime: 0000 00:00:00 DAYS H:M:S Buffer Usage:
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std: Language 1: Language 2:	NO EMBEDDING  Status: ed)  ELECTION  Status: STOPPED dB Uptime: 0000 00:00 DAYS H:M:S Buffer Usage: Bitrate: Sampling Frequency:
Group 4 (ch 15+16): Audio Decoders — Decode Mode: Stereo Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std: Language 1: Language 2: Decoder 2 (Advance)	NO EMBEDDING  Status: ed)  dB Uptime: 0000 00:00 DAYS H:M:S Buffer Usage: Bitrate: Sampling Frequency: ed)
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decode Mode: Stereo Decoder 1 (Advance) PID: NO SE Gain: 0.0 Coding Std: Language 1: Language 2: Decoder 2 (Advance) PID: NO SE	NO EMBEDDING  Status: ed)  ed)  status: STOPPED Bitrate: Sampling Frequency: ed)  status: STOPPED
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decode Mode: Stereo Di Decoder 1 (Advance PID: NO SE Gain: 0.0 Coding Std: Language 1: Language 2: Decoder 2 (Advance PID: NO SE Gain: 0.0	NO EMBEDDING  Status: ed)  status: STOPPED  dB Uptime: 0000 00:00 DAYS H:M:S Buffer Usage: Bitrate: Sampling Frequency: ed)  status: STOPPED dB Uptime: 0000 00:00 DAYS H:M:S
Group 4 (ch 15+16): Audio Decoders Decode Mode: Stereo Decode Mode: Stereo Decoder 1 (Advance) PID: NO SE Gain: 0.0 Coding Std: Language 1: Language 2: Decoder 2 (Advance) PID: NO SE	NO EMBEDDING  Status: ***  ed)  ELECTION  Status: STOPPED Bitrate: Bitrate: Sampling Frequency:  ed)  ELECTION  Status: STOPPED

Figure 19 Decode Web Page

#### 5.3.9 Output

#### The Output web page provides access to the output feed parameters of the receiver.

Status Device Info Alarms	Customization CA Inpu	t Service <i>plus</i> Decode	Output Download	SNMP Presets	Save/Load Help
📋 Output					
🖌 Apply Changes 🔮 F	Refresh				
Output					
r ≝ Output		r 🖹 Filte	r		
TS Feed: Input	*		Service Filter Mode	: OFF	~
Output One: SD-SDI			Bitrate Type		
Output Two: SD-SDI		TS Out	tput Constant Bitrate		Mbits/s
Output Three: ASI	×		sert NULLs on Failure		morey 5
[ IP Out 1		IP Out 2	2		
User Tx Enable:		User T	x Enable:		
IP: 192.1	68.003.003		IP: 192.168	.004.004	
Subnet: 255.2	55.255.000		Subnet: 255.255	.255.000	
MAC Address: 00:20	AA:57:06:18	MAC	Address: 00:20:A	A:58:06:1B	
Gateway: 000.0	00.000.000		Gateway: 000.000	.000.000	
Src UDP Port: 5000		Src	UDP Port: 5000		
	00.000.001			.000.001	
Dest UDP Port: 5501			UDP Port: 5501		
Link 1 Status : Down			2 Status : Down		
Custom Src IP: 000.0	00.000.000	Custo	m Src IP: 000.000	.000.000	
Common					
Link Speed: Auto 🚽					
Spanning Tree: 🔽					
IP Output Status					
TS Tx Status: User Tx S	Settings				
Redundancy Mode: None					
RIP Active Path: RIP Disa	bled				
Swap RIP metrics:					
MGP Parameters					
MSM IP: 239.1.2					
Tx Interval: 0 Current MGP State: Not Initi	s				
nCC Status: No Cont					
MSM Status: Normal					
RIPv2					
RIP Metric1: 5					
RIP Metric2: 10					
Timeout: 0	S				
Resume on Reboot: 📃					

Figure 20 Output Web Page

#### 5.3.10 Download

The Download web page provides access to the over air download status of the receiver. There are no user-editable fields on this page.

Status	Device Info A	Alarms	Customizati	on CA	Input	Service <i>plus</i>	Decode	Output	Download	SNMP	Presets	Save/Load	Help
	ownload												
🔹 R	efresh												
Down	load												
Para	meters —												
	C	Downloa	d Status: ID	LE									
		Pen	ding SW:										
OA	D Percent of Se	ctions A	Acquired:										

Figure 21 Download Web Page

#### 5.3.11 SNMP

This page gives access to the Simple Network Management Protocol (SNMP) parameters for the receiver, including protocol selection and MIB parameters.

Status	Device Info	Alarms	Customization	CA	Input	Service plus	Decode	Output	Download	SNMP	Presets	Save/Load	Help
_	NMP	🔹 Re	efresh										
SNMP													
Para	meters												
	Ve	ersion:	SNMPv2c -										
	Sys ser	vices:	76										
	System	Name:	RX8000										
	Trap Comm	unity:	public										
Re	ad Write Comm	unity:	private										
Re	ad Only Comm	unity:	public										
	Loc	ation:											
	Descr	iption:	An R×8000 range	e rece	eiver								
	Co	ntact:											
	Boot	Count: :	23										

Figure 22 SNMP Web Page

#### 5.3.12 Presets

The Presets web page gives access to a list of 40 preset configurations. This feature may be used to store input (tuning) parameters and service selection (service id only) in order that settings do not have to be re-entered when changes are made.

atus Device Info Alarn	ns Customization	CA Inp	ut Service <i>plus</i>	Decode	Output	Download	SNMP	Presets	Save/Load	He
Ducasta										
Presets										
🖌 Apply Changes 🛛 💈	Refresh									
resets										
Preset Save/Recall -										
Select Preset Number:			Save Preset Nu	mber:						
Preset 1:	NO STORED SER	VICE	Prese	et 21: N	O STORE	D SERVICE				
Preset 2:	NO STORED SER	VICE	Prese	et 22: N	O STORE	D SERVICE				
Preset 3:	NO STORED SER	VICE	Prese	et 23: N	O STORE	D SERVICE				
Preset 4:	NO STORED SER	VICE	Prese	et 24: N	O STORE	D SERVICE				
Preset 5:	NO STORED SER	VICE	Prese	et 25: N	O STORE	D SERVICE				
Preset 6:	NO STORED SER	VICE	Prese	et 26: N	O STORE	D SERVICE				
Preset 7:	NO STORED SER	VICE	Prese	et 27: N	O STORE	D SERVICE				
Preset 8:	NO STORED SER	VICE	Prese	et 28: N	O STORE	D SERVICE				
Preset 9:	NO STORED SER	VICE	Prese	et 29: N	O STORE	D SERVICE				
Preset 10:	NO STORED SER	VICE	Prese	et 30: N	O STORE	D SERVICE				
Preset 11:	NO STORED SER	VICE	Prese	et 31: N	O STORE	D SERVICE				
Preset 12:	NO STORED SER	VICE	Prese	et 32: N	O STORE	D SERVICE				
Preset 13:	NO STORED SER	VICE	Prese	et 33: N	O STORE	D SERVICE				
Preset 14:	NO STORED SER	VICE	Prese	et 34: N	O STORE	D SERVICE				
Preset 15:	NO STORED SER	VICE	Prese	et 35: N	O STORE					
Preset 16:	NO STORED SER	VICE	Prese	et 36: N	O STORE	D SERVICE				
Preset 17:	NO STORED SER	VICE	Prese	et 37: N	O STORE	D SERVICE				
Preset 18:	NO STORED SER	VICE	Prese	et 38: N	O STORE	D SERVICE				
Preset 19:	NO STORED SER	VICE	Prese	et 39: N	O STORE	D SERVICE				
Preset 20:	NO STORED SER	VICE	Prese	et 40: N		D SERVICE				

Figure 23 Presets Web Page

#### 5.3.13 Save/Load

The Save/Load web page provides a range of configuration download and upload facilities, including saving and restoring unit configuration, saving unit MIB files, saving alarm log files and saving splice log files.

Status Devic	ce Info	Alarms	Customization	CA	Input	Service plus	Decode	Output	Download	SNMP	Presets	Save/Load	Help	
			load and upl									]		
This product supports download and upload of configuration files. These files act as "snapshots" of the running configurations and can be stored for later use. A configuration file can be uploaded to the product at any time.														
Save Confi	iguratio	on to Fil	le											
Save Configuration to File         Image: Configuration to File         To save the current (running) configuration, move the mouse pointer over the link below, right-click and select "Save target as" or "Save link target as", dependent on the browser you are using.         You will then be prompted for a filename and a place to store the file.         Right Click to Save         Right Click to Save (with parameter names)														
Restore Co	onfigura	ation fr	om File											
	Restore Configuration from File Use the form below to upload configurations to the product. The configuration will be activated as soon as it is completely uploaded. Watch the result window at the bottom of the screen for results of the operation. If the configuration file is invalid, messages will be given in this window. Note that if anything fails during a configuration upload, NO parameter changes will be													

Save MIBs File	
	To save the current (running) MIBs file click on the link below. You will then be prompted for a filename and a place to store the file. <u>Click to Save</u>
Save Alarm Logs	File
	To save the current alarm Logs file click on the link below. You will then be prompted for a filename and a place to store the file. <u>Right Click to Save</u>
Save Splice Logs	File
	To save the current splice Logs file click on the link below. You will then be prompted for a filename and a place to store the file. <u>Right Click to Save</u>

Figure 24 Save/Load Web Page

#### 5.3.14 Help

The Help web page gives access to a Web Interface User Guide which provides a brief description of the interface functionality.

Status	Device Info	Alarms	Customization	CA	Input	Service <i>plus</i>	Decode	Output	Download	SNMP	Presets	Save/Load	Help	^
WEB	interface	user g	guide											
	ion of the pro		escription of the f ase consult the u				the WEB in	nterface.	For detaile	d instru	ctions rel	ated to the		
	<u>Overview</u> A general ov	erview o	f the WEB interfa	ice										
	<u>Navigation</u> How to navig	ate in the	e system											
	<u>General Con</u> A summary o		general comman	ds.										
	Table operat How to navig		edit tables											
	<u>Result prese</u> Description o		ult window and it	ts co	ntent									
	Troubleshoo Some commo		ons and answers	5										

Figure 25 Help Web Page

# 6 Equipment Packaging

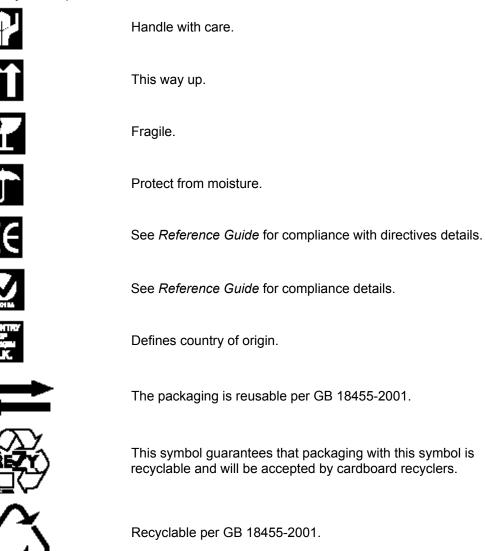
## 6.1 Packaging Statement

The outer carton and any cardboard inserts are made from 82% recycled material and are fully recyclable.

The Stratocell<sup>®</sup> or Ethafoam 220<sup>®</sup> polyethylene foam inserts can be easily recycled with other low density polyethylene (LDPE) materials

## 6.2 Packaging Markings

The symbols printed on the outer carton are described below:



O)CD

O)CD

## 7 Materials Declarations

### 7.1 Overview

Ericsson products are designed and manufactured in keeping with good environmental practice. Our component and materials selection policy prohibits the use of a range of potentially hazardous materials. In addition, we comply with relevant environmental legislation.

## 7.2 For the European Union

For product sold into the EU after 1<sup>st</sup> July 2006, we comply with the EU RoHS Directive. We also comply with the WEEE Directive.

## 7.3 For China

For product sold into China after 1st March 2007, we comply with the "Administrative Measure on the Control of Pollution by Electronic Information Products". In the first stage of this legislation, content of six hazardous materials has to be declared together with a statement of the "Environmentally Friendly Use Period (EFUP)": the time the product can be used in normal service life without leaking the hazardous materials. Ericsson expects the normal use environment to be in an equipment room at controlled temperatures (around 22°C) with moderate humidity (around 60%) and clean air, near sea level, not subject to vibration or shock.

Where Ericsson product contains potentially hazardous materials, this is indicated on the product by the appropriate symbol containing the EFUP. For Ericsson products, the hazardous material content is limited to lead (Pb) in some solders. This is extremely stable in normal use and the EFUP is taken as 50 years, by comparison with the EFUP given for Digital Exchange/Switching Platform in equipment in Appendix A of "General Rule of Environment-Friendly Use Period of Electronic Information Products". This is indicated by the product marking:



It is assumed that while the product is in normal use, any batteries associated with real-time clocks or battery-backed RAM will be replaced at the regular intervals.

The EFUP relates only to the environmental impact of the product in normal use, it does not imply that the product will continue to be supported for 50 years.

# 8 Disposal of this Equipment

## 8.1 General

Dispose of this equipment safely at the end of its life. Local codes and/or environmental restrictions may affect its disposal. Regulations, policies and/or environmental restrictions differ throughout the world. Contact your local jurisdiction or local authority for specific advice on disposal.

## 8.2 For the European Union



"This product is subject to the EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and should not be disposed of as unsorted municipal waste."

# 9 Recycling

Ericsson SA TV Recycling has a process facility that enables customers to return Old and End-of-Life Products for recycling if it is required.

Ericsson provides assistance to customers and recyclers through our Ericsson and SATV Recycling eBusiness Portal.

This can be reached at: https://ebusiness.ericsson.net/.

To gain access to the Recycling site, you must be set up with a unique login and password.

To request the login, please contact tvtechpubs@ericsson.com, and include the information below:

- First/Last name
- Password request (6 numbers/characters). If you do not include this information one will be created for you.
- Phone
- Location (Country)
- Company
- Work Area (select one of the below)
  - Executive Management
  - Marketing and Sales
  - Planning/Engineering
  - Procurement/Supply
  - Project & Programme
  - Implementation
  - Operations and Maintenance
  - R&D
  - Other

Recycling